



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

May 17, 2001

Mr. William M. Guerry, Jr.
Collier, Shannon, and Scott
3050 K Street, NW, Suite 400
Washington, DC 20007

Dear Mr. Guerry:

This letter is in response to your April 26, 2000 request that EPA clarify that drop-out box slag (DOBS) generated at electric arc furnaces (EAFs) is not covered under EPA hazardous waste listing K061.

EPA has reviewed the information provided in the Steel Manufacturers Association (SMA) position paper and, based on the description of technology related to the production of DOBS provided by SMA, and after consultation with several States and EPA Regions, EPA has determined that the DOBS is not covered by the K061 listing. This is because the K061 listing consists of "[e]mission control dust/sludge from the primary production of steel in electric furnaces," and EPA has concluded that the DOBS does not meet this listing description. An explanation of this determination is provided below.

EAFs melt scrap metal generating significant amounts of gaseous fumes and particulates. The dust and fumes are captured in hoods some distance above the furnace and/or in a duct connected to the roof of the EAF, and are transported through several hundred feet of additional ductwork to one or more air emission control devices (baghouses or wet scrubbing devices).

The emission control devices are not designed to remove large chunks of solidified material that may be sucked into the duct connected to the EAF roof. While weight and density cause most of these chunks to fall back into the EAF, some of this material may enter this duct. Historically, this material clogged the ductwork leading to the air pollution control device, causing frequent shutdowns. As a result, the EAF industry developed the "drop-out box," a large chamber that allows the solidified material to fall out of the exhaust stream, separating it from the gases and particulate matter that continue through the ductwork to the air pollution control device.

The drop-out box creates an expansion that allows solidified material, made of lime and higher boiling-point metals, and pieces of scrap metal to be removed from the flow of particulate-laden gases that are intentionally drawn out of the furnace. The drop-out box operates at approximately 1,800°F, which allows the smaller-sized, lower boiling-point metals to continue to volatilize and to be pulled by suction to the air pollution control device.

The dust and sludge removed by the air pollution control system constitutes the K061 waste. The language of the K061 listing specifically refers to "dust" and "sludge" from the EAF emissions. The rulemaking record defines dust as the waste generated by dry collection methods and sludge as the waste generated by wet collection methods. See K061 Listing Background Document at 734. Because this listing differentiates between dust and sludge, the scope of the listing is different from the general regulatory definition of sludge, which is generally defined as "any solid, semi-solid, or liquid waste" generated from an air pollution control facility. See 40 CFR 260.10. Since the drop-out box material does not meet the description in the K061 listing, the drop put box material is not covered by the K061 listing.

Today's decision applies only to the material in the drop-out box itself, as described above. It does not apply to any material in the ductwork leading to or collected in the air pollution control device(s). As such, this decision does not cover issues in previous letters that deal with the management of emission control dust from EAFs.

While we do not consider the DOBS material to be a *listed* hazardous waste, since it is not a sludge within the meaning of the listing, it is still considered a "sludge" under the general regulatory definition in 40 CFR 260.10, which includes waste generated from air pollution control facilities. Furthermore, the DOBS material may exhibit the toxicity characteristic for various metals. Thus, a facility must determine whether or not the DOBS material is a characteristic hazardous waste under 40 CFR 261 Subpart C.

However, even if the DOBS material exhibits one or more characteristics, it is not a solid waste if sent for legitimate recycling in accordance with 40 CFR 261.2. Finally, States may have regulations that are more stringent than those of the Federal government. You (or your client) should always check with the applicable State agency to determine if other regulations apply.

Thank you for your inquiry. If you have any additional questions, please contact Mr. James Michael of my staff at 703-308-8610.

Sincerely,

Elizabeth Cotsworth, Director
Office of Solid Waste

cc: RCRA Senior Policy Advisors, Regions I - X
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